

Other supplements include a lengthy glossary, a list of the "Authorities Cited in This Work," an excellent "Taxonomic List With Citations" by J. H. Barnhart, which might have been more usable if it had been alphabetically arranged, and about fifteen pages devoted to the cultivation of these south-eastern ferns.

As was rather characteristic of the author, there are a number of changes in nomenclature, mostly reverting to earlier classifications. Quoting from his introduction—"in this text an attempt has been made to interpret the fern-plants involved in more simple or natural generic concepts." He uses *Osmundopteris virginiana* (L) Small, for the Rattlesnake fern, instead of *Botrychium virginianum* Sw. For the Resurrection or Southern Polypody, *Polypodium polypodioides* Watl., he uses *Marginaria polypodioides* (L) Tidestrom and for *Selaginella Eatonii* he goes back to the old generic name of *Diplostachyum*. Common names are relegated to the end of the taxonomic descriptions and, usually, preference is given to the names that have been prevalently used for a long time.

Botanists may not always agree with Dr. Small's plant habit preferences as for example, when speaking of the habitat for *Thelypteris simulata* (Davenp) Nieuwl. (Massachusetts or Bog Fern) he states that it is found in "drier locations than are suited to the marsh fern," *Thelypteris Thelypteris* (L) Nieuwl. It may be able to survive in drier areas, but certainly the more healthy colonies prefer to have their "feet" in the water. Sphagnum bogs, partially grown over, seem to be the ideal location for this species.

However, these minor differences of opinion or disadvantages in arrangement are lost in the authoritativeness of the whole. This manual will no doubt be one of those "must have" additions to the library of botanists and fern enthusiasts.

### **An index to American ferns\***

GEORGE T. HASTINGS

It is thirty-seven years since Maxon and Gilbert published lists of American ferns and thirty since Clute completed a check

\* Index to North American Ferns. Maurice Broun. Published by the compiler at Orleans, Mass. 1938, 217 pages. \$2.50.

list in the Fern Bulletin. During this time new species and many varieties and forms have been described and much learned of the ranges of our ferns. An up-to-date list of ferns was therefore greatly needed and Mr. Broun has met this need in a thoroughly satisfactory manner. The list includes all known forms of Pteridophytes north of Mexico. The nomenclature followed is that of Christensen, though numerous forms and varieties have been changed in rank or their species name changed and so the names are given as new combinations. The arrangement is alphabetical throughout, though a systematic outline of the orders and genera is given at the beginning. As in many cases the generic names used are not those found in common manuals, the index, complete as to names of forms and varieties and synonyms, will be found very useful. For each species and form the habitat and range is given. This feature is largely the contribution of Dr. Edgar T. Wherry. "Whenever practicable, Dr. Wherry states the ranges so as to show the direction of migration." Thus the range of the Virginia Chain Fern, *Anchistea virginica*, is given "on the Coastal Plain from Florida to Texas, and to Long Island, and sporadically northward to Nova Scotia and inland to Bruce Peninsula, Ontario and to southern Michigan."

Hybrids are marked with an X, introduced species and varieties with (\*). The introduced forms are mostly escapes from cultivation in Florida or adjoining states; exceptions are the European Hart's Tongue, *Phyllitis scolopendrium*, intentionally introduced in the north, and *Marsilia quadrifolia* first found in Connecticut in 1862. Incidentally the number of introduced species given in the table at the end of the book as 21 should be reduced to 16 as five forms of *Isoetes* are put in the column of introduced species instead of native forms where they belong. The list might be further reduced to 15 as it is stated that *Salvinia natans* was "collected in Perry Co., Missouri, in 1886, and not otherwise known in North America."

In all 335 species are listed as native, with 109 varieties and 222 forms. The volume should be on the "must" list of every student of ferns.